

<110> Rosen et al.

<120> 25 Human secreted proteins

<130> PZ042P1

<140> Unassigned

<141> 2001-02-13

<150> PCT/US00/22325

<151> 2000-08-16

<150> 60/149,182

<151> 1999-08-17

<160> 86

<170> PatentIn Ver. 2.0

<210> 1

<211> 733

<212> DNA

<213> Homo sapiens

<400> 1

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<210> 2

<211> 5

<212> PRT

<213> Homo sapiens

<220>

<221> Site

<222> (3)

<223> Xaa equals any of the twenty naturally occurring L-amino acids

<400> 2

Trp Ser Xaa Trp Ser

1

5

<210> 3

<211> 86

<212> DNA  
<213> Artificial Sequence

<220>

<221> Primer\_Bind

<223> Synthetic sequence with 4 tandem copies of the GAS binding site found in the IRF1 promoter (Rothman et al., Immunity 1:457-468 (1994)), 18 nucleotides complementary to the SV40 early promoter, and a Xho I restriction site.

<400> 3

gcgcctcgag atttccccga aatctagatt tccccgaaat gatttccccg aaatgatttc 60  
cccgaaatat ctgccatctc aattag 86

<210> 4

<211> 27

<212> DNA

<213> Artificial Sequence

<220>

<221> Primer\_Bind

<223> Synthetic sequence complementary to the SV40 promoter; includes a Hind III restriction site.

<400> 4

gcggcaagct ttttgcaaag cctaggc 27

<210> 5

<211> 271

<212> DNA

<213> Artificial Sequence

<220>

<221> Protein\_Bind

<223> Synthetic promoter for use in biological assays; includes GAS binding sites found in the IRF1 promoter (Rothman et al., Immunity 1:457-468 (1994)).

<400> 5

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gcccctaact ccgcccagtt ccgcccattc tccgccccat ggctgactaa ttttttttat 180  
ttatgcagag gccgaggccg ctcgggcctc tgagctattc cagaagtagt gaggaggctt 240  
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<210> 6

<211> 32

<212> DNA

<213> Artificial Sequence

<220>

<221> Primer\_Bind

<223> Synthetic primer complementary to human genomic EGR-1 promoter sequence (Sakamoto et al., Oncogene 6:867-871 (1991)); includes a Xho I restriction site.

<400> 6  
gcgctcgcagg gatgacagcg atagaacccc gg 32

<210> 7  
<211> 31  
<212> DNA  
<213> Artificial Sequence

<220>  
<221> Primer\_Bind  
<223> Synthetic primer complementary to human genomic EGR-1 promoter sequence (Sakamoto et al., Oncogene 6:867-871 (1991)); includes a Hind III restriction site.

<400> 7  
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<210> 8  
<211> 12  
<212> DNA  
<213> Homo sapiens

<400> 8  
ggggactttc cc 12

<210> 9  
<211> 73  
<212> DNA  
<213> Artificial Sequence

<220>  
<221> Primer\_Bind  
<223> Synthetic primer with 4 tandem copies of the NF-KB binding site (GGGGACTTTCCC), 18 nucleotides complementary to the 5' end of the SV40 early promoter sequence, and a XhoI restriction site.

<400> 9  
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ccatctcaat tag 73

<210> 10  
<211> 256  
<212> DNA  
<213> Artificial Sequence

<220>  
<221> Protein\_Bind  
<223> Synthetic promoter for use in biological assays; includes NF-KB binding sites.

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 cttttgcaaa aagctt 256

<210> 11  
 <211> 2854  
 <212> DNA  
 <213> Homo sapiens

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 caatggctat gaaggcattg tctgtgcaat cgaccccaat gtgccagaag atgaaacact 180  
 cattcaacaa ataaaggaca tggtagacca ggcattctctg tatctgtttg aagctacagg 240  
 aaagcgattt tattttcaaaa atgttgccat tttgattcct gaaacatgga agacaaaggc 300  
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 ctgtacagaa caaaaccaca acaagaagc tccaaacaag caaaatcaaa aatgcaatct 840  
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 <212> DNA  
 <213> Homo sapiens

<400> 12

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 <212> DNA  
 <213> Homo sapiens

<400> 13

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&lt;210&gt; 14

&lt;211&gt; 2149

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 14

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&lt;210&gt; 15

&lt;211&gt; 2102

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 15

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&lt;210&gt; 16

&lt;211&gt; 2439

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 16

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&lt;211&gt; 2076

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 17

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&lt;211&gt; 1061

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 21

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&lt;213&gt; Homo sapiens

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&lt;210&gt; 32

&lt;211&gt; 2016

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 32

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&lt;210&gt; 33

&lt;211&gt; 1984

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 33

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&lt;210&gt; 34

&lt;211&gt; 2487

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 34

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&lt;210&gt; 35

&lt;211&gt; 2468

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 35

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&lt;223&gt; n equals a,t,g, or c

&lt;400&gt; 37

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ttcactgttt	accaaaccac	ttggtcataa	taatgtcatt	agtttctcca	ttttattttt	780
ctgaactgta	cattcacac	ttatgtttct	ttgagattaa	tagatattgg	gggaaaaacg	840
cctttttagg	aaaattatag	tgaaaatttg	acagttgatt	ggcataattt	cttggttgaa	900
tgctgcctcc	attatatagg	tccttcagg	aactcaaaca	ctgtaagtga	aatatgggag	960
tatagttttt	atattttctt	ttttcctttt	ggtttcataa	tataccgcag	tttggttcagn	1020
cngatcagna	caaagcctga	tagtacttta	ctaaaatgac	tgcattcttt	ggattccttc	1080
agtctatggt	tcaagtcact	aaagattcat	ttttgttgag	tcctcatgag	aaacagcagt	1140
atgaatcttg	acggttttctg	ccgtccctaa	tggcagncct	ctctgacttg	ggtgtatgct	1200
gccaggctgg	gtactttcat	actttgtttt	cttggtttgc	tttaaaacta	cgactcagca	1260
tacattttcc	cacatacatt	tttacattgt	accttaggac	tcagtcatct	ccacttaaat	1320
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gagcatccgg	ttttgggtatg	gggatgatcc	aggattatgt	tgtgactgat	acataattagt	1800
tacttgtgct	tttttttttt	tttttggatc	tttgcaaggg	caaaactaca	agtaacgagt	1860
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ccttgggtga	gaacacttgc	aacagtttat	taatgagggtg	actttcncct	taggacaact	1980
gttgcatgcc	aagttttttg	tgtgtgtgaa	acacttcaaa	actgatttaa	aagatgtaaa	2040
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aaaaaaaaaa	aaaaaaaaaa	aaaaaaaaaa	aaaaaaaaaa	aaaaaaaaaa		2150

&lt;210&gt; 38

&lt;211&gt; 808

&lt;212&gt; DNA

&lt;213&gt; Homo sapiens

&lt;400&gt; 38

cggcggtgtg	ggaggccgca	gtccgggtcc	tggcttcggc	ctcagcccca	ccatggtgac	60
gcttgctgaa	ctgctgggtc	tcctggccgc	tctcctggcc	acggctctcg	gctatttcgt	120
tagcatcgac	gcccagctg	aagagtgcct	ctttgagcgg	gtcacctcgg	gcaccaagat	180
gggcctcatc	ttcgagggtg	cggaggggcg	cttcctggac	atcgacgtgg	agattacagg	240
accagataac	aaaggaattt	acaaaggaga	cagagaatcc	agtgggaaat	acacatttgc	300
tgctcacatg	gatggaacat	acaaattttg	tttttagtaac	cggatgtoca	ccatgactcc	360
aaaaatagtg	atgttcacca	ttgatattgg	ggagggtcca	aaaggacaag	atatggaaac	420
agaagctcac	cagaacaagc	tagaagaaat	gatcaatgag	ctagcagtg	cgatgacagc	480
tgtaagcac	gaacaggaat	acatgggaag	ccgggagaga	atacacagag	ccatcaacga	540

caacacaaac	agcagagtgg	tccttttggtc	cttcttttgaa	gctcttggtc	tagttgccat	600
gacattggga	cagatctact	acctgaagag	atthttttgaa	gtccggagag	ttgtttaaaa	660
agcctcttcc	tgatgatccc	aactcagaat	tcactgttta	ccaaacacct	tggtcataat	720
aatgtcatta	gtttctccat	ttttattttc	tgaactgtac	attcccaact	tatgtttctt	780
tgagattaat	agatattggg	ggaaaaaa				808

<210> 39  
 <211> 1170  
 <212> DNA  
 <213> Homo sapiens

<400> 39						
gctcctgggc	ctcacaaagt	gttgggatta	caggtatgag	ccacggcacc	tggcctgggc	60
tcttaactgg	ttccctaaga	cagctggaaa	tagagaatgt	catggagcat	tcctaaccat	120
gggctccagc	ctggctttca	ttctgtttct	ccctgaaac	aacattcctt	tagtaatatt	180
ccgaataaca	gcttcatcag	tctgtctacc	gaccactctt	caggcttcat	cttatatgac	240
ctcccaaact	gcactaagg	ttgtattaga	gaaaagtgga	taaagtccg	agtcaggctg	300
cttgagctta	aatgccagct	tcacttacca	gccacctgac	catgagtcag	ctgcttaacc	360
attctttgcc	acagtttcc	tgtctatgaa	aagggaaatg	gctcccacct	caaaaagttg	420
ttaacattaa	attcaatcat	gtattcaaag	tcctgagcag	aatgtctggc	catgactggg	480
acttaacaga	tgtagcatt	tattattagt	atctgtcagt	cttgaaatgt	tctcttcctt	540
tggctttcat	gacattccac	actctcctgg	ttttctctta	cctctctgg	aataacctgtt	600
tgcttatcct	tctttgtoca	gctctgggat	gttaccattc	cttcaggcgt	gctgttttct	660
ccttaggcag	tcttacacac	actcatgact	tccttccatt	gtcctccaca	caactgatgac	720
cctaaaatca	gtatctccag	cctaaacctt	tcactgagt	tctagaccca	tatgttgtag	780
tatcaacctg	gcttgtccat	ttgaatgtct	tcaggcact	tcagactctc	ttctctagac	840
tttgctggac	tttcaactct	ccccctaaaa	ctggctcctc	ttccactgaa	acatgtatgt	900
cattgagagg	caccaccatc	caccagtg	ctaagccaga	aacctaggaa	tccttgatac	960
ctgttctctc	tcactctgca	tatccaagcc	tatcagtttt	atctctaaat	tatattttgg	1020
taggtttact	tctttccttt	ttcccacca	ccacctgtct	ccaagctacc	atcatctcac	1080
ccagagggtg	cagtgagccc	agatcacgcc	actgcactcc	agcctggtga	cagagtaaga	1140
ctccatctca	aaaaaaaa	aaaaaaaa				1170

<210> 40  
 <211> 523  
 <212> DNA  
 <213> Homo sapiens

<220>  
 <221> SITE  
 <222> (502)  
 <223> n equals a,t,g, or c

<400> 40						
gaattcggca	cgaggcrgsg	cggcggcggc	ggcggcggcg	gcggctgtgg	aggccgcagt	60
cgggtcctcg	gcttcggcct	cagccccacc	atggtgacgc	ttgctgaact	gctggtgctc	120
ctggcgctc	tcctggccac	ggtctcgggc	tatttcgtta	gcacgacgc	ccatgctgaa	180
gagtgcctt	ttgagcgggt	cacctcgggc	accaagatgg	gcctcatctt	cgagggtggc	240
gagggcggct	tcctggacat	cgacgtggag	gtgcgggcta	gctgcccga	gctgaggctt	300
ggtcgcgtgg	ccactcgggg	attggtggca	cctgggaccg	gcgcggggcc	tgtgtgggga	360
gtgggcttgg	aagtcgctgt	ccgagtcctg	gagaagccca	ggccgccacc	ccccgccccg	420
ccccggccac	ggcgacctcc	taacggcccc	ttttcccgcg	acttgcttgg	gttccgggat	480
cccttggggg	ctccttcggc	angcttgggt	gctttggggt	ttc		523

<210> 41

<211> 2505  
 <212> DNA  
 <213> Homo sapiens

<400> 41

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aatatgatgg	accctataac	ctggccattt	gctttggccc	aacattgatg	cctgtcccag	120
aaatacagga	tcaagtgtct	tgccaggcac	atgtgaatga	aattatcaaa	accatcatca	180
tccaccatga	gactattttc	ccagatgcta	aagagctgga	tggccctgtt	tatgagaaat	240
gtatggctgg	agatgactat	tgcgacasc	atacagttag	cacggtagat	tggagggaag	300
ggaccaagat	gctggtacag	agccccacac	aagtgaagat	gaatgtgagc	caatagaagc	360
aatagccaag	tttgactatg	ttgggcggtc	cgccagagaa	ctatccttca	agaagggtgc	420
ctccctgctg	ctgtatcacc	gtgcatctga	ggactggtgg	gaaggcaggc	acaacgggat	480
tgacgggctg	gtgcctcacc	agtatatagt	ggtgcaggat	atggatgata	cgttttcaga	540
cactctgagc	caaaaagcgg	acagttaggc	cagcagtggg	ccagtcacgg	aagacaagtc	600
ctcatccaag	gacatgaact	ccccgacaga	ccgtcatcct	gacggctatt	tagccaggca	660
acgaaaaaga	ggagagccac	ccccctccag	aaggcgctct	ggcaggacca	gtgatggcca	720
ttgcccgtc	caccctccac	atgccttttc	taactcctca	gttgacctag	ggtccccaag	780
ccttgccagt	cacccccggg	gctgctgca	gaaccgtggc	ctcaacaatg	acagtcctga	840
gcgagggcgc	aggcctggcc	atggcagcct	gaccaacatc	agccggcacg	actccctcaa	900
gaagatcgac	agccctccca	ttagaagggtc	cacgtcatca	gggcaatata	cgggcttcaa	960
tgaccacaag	ccactggacc	cagagacaat	tgctcaggat	attgaagaaa	cgatgaacac	1020
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ggtgctggat	accctggagc	aagtgaaaaa	ctctcccacc	cctgccactt	ccacggaatc	1140
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gagctcctcc	agtgcacaaa	tgagtacttt	caagcctatg	gtggcaccca	gaatgggctg	1260
gcagctgaag	cctccagccc	ttaggccaaa	acctgctgtt	cttccaaaaa	caaatactac	1320
cataggacct	gccccacctc	cccagggtcc	aacagacaag	tcatgcacaa	tgtaaaaaacc	1380
agccaagcaa	ggccataaag	ggaggtgact	taaaaaagaa	aatggattag	tgacaaaagt	1440
cactgatccw	taactttcct	tagttttgtg	cttataactg	gagatctttt	ggcttttcta	1500
tgttgctgaa	tgtaatgtct	gagactagct	aaattaacac	gggcattttg	attttgtaat	1560
tttttttaaa	aactggacat	atgtcatttt	aaggacaata	gaaacactta	gacttacttg	1620
aaaatccaat	gctgcaccac	ttgtaatgaa	ggcaacaccg	ctctccacat	tgtacagagc	1680
ttcaggttta	atgtagccca	gctgagtcag	aaaggttgtg	acctgaaggc	agaagaaccc	1740
gaatgccaca	cctcattgga	gtatagccag	tggtggtctg	tggcacttgg	gctgaaaggt	1800
gataatggca	ttgctgtgta	gctgacaatg	agcaccttcg	gttccatgtg	gagcgggggt	1860
tagctcatgc	aaaagacttg	caattgtctc	catgggacga	tcccagtggg	actgtcagcc	1920
cacagctcga	gtgggttgga	tgcttgccctc	tttcctaaca	gttatttccc	cgggtccagc	1980
ttaaagactc	gatggaagga	ggtagaacct	ctgctgttac	tgcttgaact	taacctggga	2040
aaggagagga	agacaccatc	tccaaagcta	ttaatgtcac	tcctttttgcg	agcatgatta	2100
ggccccggag	atttccaagt	cccccatct	acacttacaa	acgattagaa	gggttttaatt	2160
ttaaagactt	tctggtttaca	ctactccacg	aactcctcca	aagatccgtt	attcaataac	2220
tgccatgaaa	atgtttccat	ctcctctaaa	tcctgtgtgt	ctcctctgtg	gaaatgaagg	2280
cagcaagaag	cacctgaggc	cttggtttcat	gcagtgttct	cttttgacta	aatcacctag	2340
gttcctttta	acatgctaca	aagcccaggc	atggtggtgc	acacctgtac	tcccagctac	2400
tcgggtgggt	tacacaggag	gatggctttg	ggcctagtag	ttcgagtcca	gcctgggcag	2460
catagtgtga	gaccctgtct	cttaaaaaaa	aaaaaaaaaa	ctcga		2505

<210> 42  
 <211> 914  
 <212> PRT  
 <213> Homo sapiens

<400> 42

Met Gly Pro Phe Lys Ser Ser Val Phe Ile Leu Ile Leu His Leu Leu

1

5

10

15



Glu Gly Ala Leu Ser Asn Ser Leu Ile Gln Leu Asn Asn Asn Gly Tyr  
 20 25 30  
 Glu Gly Ile Val Val Ala Ile Asp Pro Asn Val Pro Glu Asp Glu Thr  
 35 40 45  
 Leu Ile Gln Gln Ile Lys Asp Met Val Thr Gln Ala Ser Leu Tyr Leu  
 50 55 60  
 Phe Glu Ala Thr Gly Lys Arg Phe Tyr Phe Lys Asn Val Ala Ile Leu  
 65 70 75 80  
 Ile Pro Glu Thr Trp Lys Thr Lys Ala Asp Tyr Val Arg Pro Lys Leu  
 85 90 95  
 Glu Thr Tyr Lys Asn Ala Asp Val Leu Val Ala Glu Ser Thr Pro Pro  
 100 105 110  
 Gly Asn Asp Glu Pro Tyr Thr Glu Gln Met Gly Asn Cys Gly Glu Lys  
 115 120 125  
 Gly Glu Arg Ile His Leu Thr Pro Asp Phe Ile Ala Gly Lys Lys Leu  
 130 135 140  
 Ala Glu Tyr Gly Pro Gln Gly Arg Ala Phe Val His Glu Trp Ala His  
 145 150 155 160  
 Leu Arg Trp Gly Val Phe Asp Glu Tyr Asn Asn Asp Glu Lys Phe Tyr  
 165 170 175  
 Leu Ser Asn Gly Arg Ile Gln Ala Val Arg Cys Ser Ala Gly Ile Thr  
 180 185 190  
 Gly Thr Asn Val Val Lys Lys Cys Gln Gly Gly Ser Cys Tyr Thr Lys  
 195 200 205  
 Arg Cys Thr Phe Asn Lys Val Thr Gly Leu Tyr Glu Lys Gly Cys Glu  
 210 215 220  
 Phe Val Leu Gln Ser Arg Gln Thr Glu Lys Ala Ser Ile Met Phe Ala  
 225 230 235 240  
 Gln His Val Asp Ser Ile Val Glu Phe Cys Thr Glu Gln Asn His Asn  
 245 250 255  
 Lys Glu Ala Pro Asn Lys Gln Asn Gln Lys Cys Asn Leu Arg Ser Thr  
 260 265 270  
 Trp Glu Val Ile Arg Asp Ser Glu Asp Phe Lys Lys Thr Thr Pro Met  
 275 280 285  
 Thr Thr Gln Pro Pro Asn Pro Thr Phe Ser Leu Leu Gln Ile Gly Gln  
 290 295 300  
 Arg Ile Val Cys Leu Val Leu Asp Lys Ser Gly Ser Met Ala Thr Gly  
 305 310 315 320  
 Asn Arg Leu Asn Arg Leu Asn Gln Ala Gly Gln Leu Phe Leu Leu Gln

[illegible]

Glu Leu Leu Asp Asn Gly Ala Gly Ala Asp Ala Thr Lys Asp Asp Gly  
 645 650 655  
 Val Tyr Ser Arg Tyr Phe Thr Thr Tyr Asp Thr Asn Gly Arg Tyr Ser  
 660 665 670  
 Val Lys Val Arg Ala Leu Gly Gly Val Asn Ala Ala Arg Arg Arg Val  
 675 680 685  
 Ile Pro Gln Gln Ser Gly Ala Leu Tyr Ile Pro Gly Trp Ile Glu Asn  
 690 695 700  
 Asp Glu Ile Gln Trp Asn Pro Pro Arg Pro Glu Ile Asn Lys Asp Asp  
 705 710 715 720  
 Val Gln His Lys Gln Val Cys Phe Ser Arg Thr Ser Ser Gly Gly Ser  
 725 730 735  
 Phe Val Ala Ser Asp Val Pro Asn Ala Pro Ile Pro Asp Leu Phe Pro  
 740 745 750  
 Pro Gly Gln Ile Thr Asp Leu Lys Ala Glu Ile His Gly Gly Ser Leu  
 755 760 765  
 Ile Asn Leu Thr Trp Thr Ala Pro Gly Asp Asp Tyr Asp His Gly Thr  
 770 775 780  
 Ala His Lys Tyr Ile Ile Arg Ile Ser Thr Ser Ile Leu Asp Leu Arg  
 785 790 795 800  
 Asp Lys Phe Asn Glu Ser Leu Gln Val Asn Thr Thr Ala Leu Ile Pro  
 805 810 815  
 Lys Glu Ala Asn Ser Glu Glu Val Phe Leu Phe Lys Pro Glu Asn Ile  
 820 825 830  
 Thr Phe Glu Asn Gly Thr Asp Leu Phe Ile Ala Ile Gln Ala Val Asp  
 835 840 845  
 Lys Val Asp Leu Lys Ser Glu Ile Ser Asn Ile Ala Arg Val Ser Leu  
 850 855 860  
 Phe Ile Pro Pro Gln Thr Pro Pro Glu Thr Pro Ser Pro Asp Glu Thr  
 865 870 875 880  
 Ser Ala Pro Cys Pro Asn Ile His Ile Asn Ser Thr Ile Pro Gly Ile  
 885 890 895  
 His Ile Leu Lys Ile Met Trp Lys Trp Ile Gly Glu Leu Gln Leu Ser  
 900 905 910  
 Ile Ala

&lt;210&gt; 43

&lt;211&gt; 187

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 43

Met Val Ala Ala Thr Val Ala Ala Ala Trp Leu Leu Leu Trp Ala Ala  
 1 5 10 15

Ala Cys Ala Gln Gln Glu Gln Asp Phe Tyr Asp Phe Lys Ala Val Asn  
 20 25 30

Ile Arg Gly Lys Leu Val Ser Leu Glu Lys Tyr Arg Gly Ser Val Ser  
 35 40 45

Leu Val Val Asn Val Ala Ser Glu Cys Gly Phe Thr Asp Gln His Tyr  
 50 55 60

Arg Ala Leu Gln Gln Leu Gln Arg Asp Leu Gly Pro His His Phe Asn  
 65 70 75 80

Val Leu Ala Phe Pro Cys Asn Gln Phe Gly Gln Gln Glu Pro Asp Ser  
 85 90 95

Asn Lys Glu Ile Glu Ser Phe Ala Arg Arg Thr Tyr Ser Val Ser Phe  
 100 105 110

Pro Met Phe Ser Lys Ile Ala Val Thr Gly Thr Gly Ala His Pro Ala  
 115 120 125

Phe Lys Tyr Leu Ala Gln Thr Ser Gly Lys Glu Pro Thr Trp Asn Phe  
 130 135 140

Trp Lys Tyr Leu Val Ala Pro Asp Gly Lys Val Val Gly Ala Trp Asp  
 145 150 155 160

Pro Thr Val Ser Val Glu Glu Val Arg Pro Gln Ile Thr Ala Leu Val  
 165 170 175

Arg Lys Leu Ile Leu Leu Lys Arg Glu Asp Leu  
 180 185

&lt;210&gt; 44

&lt;211&gt; 346

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 44

Met Asp Pro Ala Arg Lys Ala Gly Ala Gln Ala Met Ile Trp Thr Ala  
 1 5 10 15

Gly Trp Leu Leu Leu Leu Leu Arg Gly Gly Ala Gln Ala Leu Glu  
 20 25 30

Cys Tyr Ser Cys Val Gln Lys Ala Asp Asp Gly Cys Ser Pro Asn Lys  
 35 40 45

Met Lys Thr Val Lys Cys Ala Pro Gly Val Asp Val Cys Thr Glu Ala  
 50 55 60

Val Gly Ala Val Glu Thr Ile His Gly Gln Phe Ser Leu Ala Val Arg  
 65 70 75 80  
 Gly Cys Gly Ser Gly Leu Pro Gly Lys Asn Asp Arg Gly Leu Asp Leu  
 85 90 95  
 His Gly Leu Leu Ala Phe Ile Gln Leu Gln Gln Cys Ala Gln Asp Arg  
 100 105 110  
 Cys Asn Ala Lys Leu Asn Leu Thr Ser Arg Ala Leu Asp Pro Ala Gly  
 115 120 125  
 Asn Glu Ser Ala Tyr Pro Pro Asn Gly Val Glu Cys Tyr Ser Cys Val  
 130 135 140  
 Gly Leu Ser Arg Glu Ala Cys Gln Gly Thr Ser Pro Pro Val Val Ser  
 145 150 155 160  
 Cys Tyr Asn Ala Ser Asp His Val Tyr Lys Gly Cys Phe Asp Gly Asn  
 165 170 175  
 Val Thr Leu Thr Ala Ala Asn Val Thr Val Ser Leu Pro Val Arg Gly  
 180 185 190  
 Cys Val Gln Asp Glu Phe Cys Thr Arg Asp Gly Val Thr Gly Pro Gly  
 195 200 205  
 Phe Thr Leu Ser Gly Ser Cys Cys Gln Gly Ser Arg Cys Asn Ser Asp  
 210 215 220  
 Leu Arg Asn Lys Thr Tyr Phe Ser Pro Arg Ile Pro Pro Leu Val Arg  
 225 230 235 240  
 Leu Pro Pro Pro Glu Pro Thr Thr Val Ala Ser Thr Thr Ser Val Thr  
 245 250 255  
 Thr Ser Thr Ser Ala Pro Val Arg Pro Thr Ser Thr Thr Lys Pro Met  
 260 265 270  
 Pro Ala Pro Thr Ser Gln Thr Pro Arg Gln Gly Val Glu His Glu Ala  
 275 280 285  
 Ser Arg Asp Glu Glu Pro Arg Leu Thr Gly Gly Ala Ala Gly His Gln  
 290 295 300  
 Asp Arg Ser Asn Ser Gly Gln Tyr Pro Ala Lys Gly Gly Pro Gln Gln  
 305 310 315 320  
 Pro His Asn Lys Gly Cys Val Ala Pro Thr Ala Gly Leu Ala Ala Leu  
 325 330 335  
 Leu Leu Ala Val Ala Ala Gly Val Leu Leu  
 340 345

&lt;210&gt; 45

&lt;211&gt; 354

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 45

Met Ala Pro Ala Lys Ala Thr Asn Val Val Arg Leu Leu Leu Gly Ser  
 1 5 10 15

Thr Ala Leu Trp Leu Ser Gln Leu Gly Ser Gly Thr Val Ala Ala Ser  
 20 25 30

Lys Ser Val Thr Ala His Leu Ala Ala Lys Trp Pro Glu Thr Pro Leu  
 35 40 45

Leu Leu Glu Ala Ser Glu Phe Met Ala Glu Glu Ser Asn Glu Lys Phe  
 50 55 60

Trp Gln Phe Leu Glu Thr Val Gln Glu Leu Ala Ile Tyr Lys Gln Thr  
 65 70 75 80

Glu Ser Asp Tyr Ser Tyr Tyr Asn Leu Ile Leu Lys Lys Ala Gly Gln  
 85 90 95

Phe Leu Asp Asn Leu His Ile Asn Leu Leu Lys Phe Ala Phe Ser Ile  
 100 105 110

Arg Ala Tyr Ser Pro Ala Ile Gln Met Phe Gln Gln Ile Ala Ala Asp  
 115 120 125

Glu Pro Pro Pro Asp Gly Cys Asn Ala Phe Val Val Ile His Lys Lys  
 130 135 140

His Thr Cys Lys Ile Asn Glu Ile Lys Lys Leu Leu Lys Lys Ala Ala  
 145 150 155 160

Ser Arg Thr Arg Pro Tyr Leu Phe Lys Gly Asp His Lys Phe Pro Thr  
 165 170 175

Asn Lys Glu Asn Leu Pro Val Val Ile Leu Tyr Ala Glu Met Gly Thr  
 180 185 190

Arg Thr Phe Ser Ala Phe His Lys Val Leu Ser Glu Lys Ala Gln Asn  
 195 200 205

Glu Glu Ile Leu Tyr Val Leu Arg His Tyr Ile Gln Lys Pro Ser Ser  
 210 215 220

Arg Lys Met Tyr Leu Ser Gly Tyr Gly Val Glu Leu Ala Ile Lys Ser  
 225 230 235 240

Thr Glu Tyr Lys Ala Leu Asp Asp Thr Gln Val Lys Thr Val Thr Asn  
 245 250 255

Thr Thr Val Glu Asp Glu Thr Glu Thr Asn Glu Val Gln Gly Phe Leu  
 260 265 270

Phe Gly Lys Leu Lys Glu Ile Tyr Ser Asp Leu Arg Asp Asn Leu Thr  
 275 280 285

Ala Phe Gln Lys Tyr Leu Ile Glu Ser Asn Lys Gln Met Met Pro Leu  
290 295 300

Lys Val Trp Glu Leu Gln Asp Leu Ser Phe Gln Ala Ala Ser Gln Ile  
305 310 315 320

Met Ser Ala Pro Val Tyr Asp Ala Ile Lys Leu Met Lys Asp Ile Ser  
325 330 335

Gln Asn Phe Pro Ile Lys Ala Arg Val Gln Met Ile Gly Asn Val Leu  
340 345 350

Ile Gly

<210> 46

<211> 366

<212> PRT

<213> Homo sapiens

<400> 46

Met Ala Cys Leu Lys Thr Gln Arg Ala Pro Lys Ala Phe Leu Leu Leu  
1 5 10 15

Pro Leu Leu Leu Tyr Phe Ala Gly Leu Ser Lys Leu Thr Gln Leu Gln  
20 25 30

Val Cys Ser Gly Thr Asp Glu Asp Pro Asp Asp Lys Asn Ala Pro Phe  
35 40 45

Arg Gln Arg Pro Phe Cys Lys Tyr Lys Gly His Thr Ala Asp Leu Leu  
50 55 60

Asp Leu Ser Trp Ser Lys Asn Tyr Phe Leu Leu Ser Ser Ser Met Asp  
65 70 75 80

Lys Thr Val Arg Leu Trp His Ile Ser Arg Arg Glu Cys Leu Cys Cys  
85 90 95

Phe Gln His Ile Asp Phe Val Thr Ala Ile Ala Phe His Pro Arg Asp  
100 105 110

Asp Arg Tyr Phe Leu Ser Gly Ser Leu Asp Gly Lys Leu Arg Leu Trp  
115 120 125

Asn Ile Pro Asp Lys Lys Val Ala Leu Trp Asn Glu Val Asp Gly Gln  
130 135 140

Thr Lys Leu Ile Thr Ala Ala Asn Phe Cys Gln Asn Gly Lys Tyr Ala  
145 150 155 160

Val Ile Gly Thr Tyr Asp Gly Arg Cys Ile Phe Tyr Asp Thr Glu His  
165 170 175

Leu Lys Tyr His Thr Gln Ile His Val Arg Ser Thr Arg Gly Arg Asn  
180 185 190

Lys Val Gly Arg Lys Ile Thr Gly Ile Glu Pro Leu Pro Gly Glu Asn  
195 200 205

Lys Ile Leu Val Thr Ser Asn Asp Ser Arg Ile Arg Leu Tyr Asp Leu  
210 215 220

Arg Asp Leu Ser Leu Ser Met Lys Tyr Lys Gly Tyr Val Asn Ser Ser  
225 230 235 240

Ser Gln Ile Lys Ala Ser Phe Ser His Asp Phe Thr Tyr Leu Val Ser  
245 250 255

Gly Ser Glu Asp Lys Tyr Val Tyr Ile Trp Ser Thr Tyr His Asp Leu  
260 265 270

Ser Lys Phe Thr Ser Val Arg Arg Asp Arg Asn Asp Phe Trp Glu Gly  
275 280 285

Ile Lys Ala His Asn Ala Val Val Thr Ser Ala Ile Phe Ala Pro Asn  
290 295 300

Pro Ser Leu Met Leu Ser Leu Asp Val Gln Ser Glu Lys Ser Glu Gly  
305 310 315 320

Asn Glu Lys Ser Glu Asp Ala Glu Val Leu Asp Ala Thr Pro Ser Gly  
325 330 335

Ile Met Lys Thr Asp Asn Thr Glu Val Leu Leu Ser Ala Asp Phe Thr  
340 345 350

Gly Ala Ile Lys Val Phe Val Asn Lys Arg Lys Asn Val Ser  
355 360 365

<210> 47

<211> 124

<212> PRT

<213> Homo sapiens

<400> 47

Met Arg Gln Val Ala Pro Ala Arg Arg Ala Gln Leu Glu His Ser Gly  
1 5 10 15

Leu His Ala Ser Leu Cys Leu Leu Ser Leu Leu Ser Leu Leu Pro Thr  
20 25 30

Leu Glu Ala Asn Met Ser Gly Phe His Gln Ala Pro Leu Thr Leu Leu  
35 40 45

Pro Ser Cys Thr Gln Gly Asp Gly Glu Ala Arg Gly His His Thr Gln  
50 55 60

Pro Ser Phe Trp Arg Thr Glu Met Lys Cys Pro Val Glu Ala Leu Leu  
65 70 75 80

Glu His Leu Ala Thr Arg Ala Val Val Gly Arg Asn Gly Asp His Gly  
85 90 95



Ala Gln Gln Glu His Arg Thr Ala Ser Glu Gly Gln Gln Gln Pro Leu  
 100 105 110

Ala Glu Ser Ser Pro Trp Trp Gln Pro Pro His Gly  
 115 120

<210> 48

<211> 74

<212> PRT

<213> Homo sapiens

<400> 48

Met Ala Leu Phe Ala Trp Leu Cys Leu Ser Ala Val Val Glu Ser Ser  
 1 5 10 15

Ser Pro Gly Met Cys Met Ser Lys Cys Val Leu Ile Val Met Pro Arg  
 20 25 30

Gln Lys Pro Leu Glu Asp Cys Cys Arg His Ala Leu Lys Met Thr Ser  
 35 40 45

His Ser Ser Glu Lys Leu Gly Asp Leu Thr Pro Glu Gly Leu Lys Ser  
 50 55 60

Glu Lys Ser Gln Glu His Leu Gly Phe Lys  
 65 70

<210> 49

<211> 102

<212> PRT

<213> Homo sapiens

<400> 49

Met Leu Leu His Trp Leu Leu Gln Asn Glu Leu Gln Ser Ala Val Ala  
 1 5 10 15

Ser Cys Leu Val Ser Ile Ser Leu Gly Lys Glu Asp Phe Leu Gln Thr  
 20 25 30

Gly Cys Lys Val Lys Ser His Val Gly Val Ile His Arg Arg Glu Lys  
 35 40 45

Gly Gly Ala Ile Tyr Leu Pro Asn Ser Leu Val Leu Pro Thr Ser His  
 50 55 60

Trp Ile Arg Leu Ser Tyr Arg Asn Arg His Arg Gly Phe Ile Leu Trp  
 65 70 75 80

Thr Leu Met Ser Thr Trp Glu Ala Arg Cys His Gly Pro Cys Val Met  
 85 90 95

Phe Asp Phe Asn Gln Lys  
 100

<210> 50

<211> 51  
 <212> PRT  
 <213> Homo sapiens

<400> 50  
 Met Ile Ile Cys Leu Ile Met Phe Tyr Phe Ile Ala Leu Ala Gly Ala  
   1                  5                  10                  15  
 His Lys Arg Val Val Ile Gln Leu Arg Glu Gln Leu Ser Leu Glu Ser  
                   20                  25                  30  
 Arg Asp Lys Cys Tyr Leu Ile Gln Lys Leu Thr Glu Ala Gln Arg Asp  
           35                  40                  45  
 Met Arg Asn  
       50

<210> 51  
 <211> 68  
 <212> PRT  
 <213> Homo sapiens

<400> 51  
 Met Ala Thr Val Gly Leu Ser Trp Lys Lys Glu Leu Val Ile Leu Leu  
   1                  5                  10                  15  
 Val Gly Pro Gly Ala Ala Ala Leu Gln Pro Thr His Thr Cys Cys Ser  
           20                  25                  30  
 Leu Pro Ser Leu Ser Ser Leu Phe Pro Leu Arg Leu Asn Thr Lys Thr  
           35                  40                  45  
 Ser Pro Lys Thr Thr Arg Thr Asn Leu Tyr Leu Leu Ser Ile Ala Pro  
       50                  55                  60  
 Leu Ser His Leu  
   65

<210> 52  
 <211> 85  
 <212> PRT  
 <213> Homo sapiens

<400> 52  
 Met Gln Val Phe Phe Leu Ser Glu Ile Gly Met Leu Trp Val Val Val  
   1                  5                  10                  15  
 Lys Met Ala His Ser Ala Met Leu Val Ser His Thr Gln Asp Pro Thr  
           20                  25                  30  
 Pro Ser Arg Trp Pro Cys Ser Leu Ala Gln Ser Ile Leu Leu Thr Cys  
           35                  40                  45  
 Ser Pro Gln His Arg Phe Ser Leu Glu Arg Lys Ile Gln Leu Pro Pro  
       50                  55                  60

Arg Arg Trp Trp Ala Glu Gly Arg Glu Gly Cys Trp Val Arg Glu Arg  
 65 70 75 80

Val Gly Glu Arg Thr  
 85

<210> 53  
 <211> 83  
 <212> PRT  
 <213> Homo sapiens

<400> 53  
 Met Ala Ser Cys Gly Leu Thr Gly Ala Ser Leu Pro Pro Cys Cys Cys  
 1 5 10 15

Ser Ser Phe Leu Ala Ala Leu Lys Ser Met Phe Trp Gly Leu Gly Ser  
 20 25 30

Leu Leu Trp Ser Leu Val Gly Ile Leu Ser Pro Ile Ser Ser Cys Phe  
 35 40 45

Cys Val Tyr Thr Cys Leu Thr Pro Gly Ser Ser Ser Leu Phe Pro Arg  
 50 55 60

Ala Val Thr Gln Lys Leu Glu Gln Ser Val Pro Thr Lys Ala Leu Trp  
 65 70 75 80

Gly Trp Met

<210> 54  
 <211> 157  
 <212> PRT  
 <213> Homo sapiens

<400> 54  
 Met Gln Ala Pro Arg Ala Ala Leu Val Phe Ala Leu Val Ile Ala Leu  
 1 5 10 15

Val Pro Val Gly Arg Gly Asn Tyr Glu Glu Leu Glu Asn Ser Gly Asp  
 20 25 30

Thr Thr Val Glu Ser Glu Arg Pro Asn Lys Val Thr Ile Pro Ser Thr  
 35 40 45

Phe Ala Ala Val Thr Ile Lys Glu Thr Leu Asn Ala Asn Ile Asn Ser  
 50 55 60

Thr Asn Phe Ala Pro Asp Glu Asn Gln Leu Glu Phe Ile Leu Met Val  
 65 70 75 80

Leu Ile Pro Leu Ile Leu Leu Val Leu Leu Leu Ser Val Val Phe  
 85 90 95

Leu Ala Thr Tyr Tyr Lys Arg Lys Arg Thr Lys Gln Glu Pro Ser Ser  
 100 105 110

Gln Gly Ser Gln Ser Ala Leu Gln Thr Cys Glu Tyr Tyr Pro Lys Thr  
 115 120 125

Cys Leu Gln Val Gly Val Gly Leu Glu Lys Glu Gln Arg Cys Phe Lys  
 130 135 140

Ile Lys Gln Gln Gly Leu His Ile Ile Val Ser Asp Lys  
 145 150 155

<210> 55

<211> 57

<212> PRT

<213> Homo sapiens

<400> 55

Met Cys Glu Gly Trp Leu His Pro Ile Phe Leu Tyr Cys Cys Phe Trp  
 1 5 10 15

Thr Thr Thr Pro Ser Cys Ser Ala Phe Gly Ile Leu Asp Leu His Gln  
 20 25 30

Gln His Pro Ile Pro Thr Pro Ser Ser Trp Phe Ser Gly Leu Cys Pro  
 35 40 45

Trp Thr Glu Leu His His Cys Leu Arg  
 50 55

<210> 56

<211> 47

<212> PRT

<213> Homo sapiens

<400> 56

Met Ser His Gly Ser Gln Pro Phe Leu Leu Leu Ser Leu His Ile  
 1 5 10 15

Leu Ile Leu Ala Gly Ser Phe Leu Leu Phe Ser Pro Tyr Thr Ala Lys  
 20 25 30

Pro Ser Phe Ser Ser Ser Phe Ile Val Phe Pro Arg Ala Glu Met  
 35 40 45

<210> 57

<211> 67

<212> PRT

<213> Homo sapiens

<400> 57

Met Val Leu Gly Phe Val Leu Leu Leu Phe Asn Met Gly Gly Thr Phe  
 1 5 10 15

Ser Asp Gly Arg Lys Glu Arg Arg Arg Thr Thr Phe Leu Arg Cys Cys  
 20 25 30

Asp Phe Ile Met Lys Pro Ser Pro Ala Leu Ile Leu Val Thr Ser Val  
 35 40 45

Gly Pro Val Leu Leu Gln Asn Ala Ser Trp Val Ser Val Cys Arg Thr  
 50 55 60

Leu Leu Ser  
 65

<210> 58

<211> 43

<212> PRT

<213> Homo sapiens

<400> 58

Met Tyr Phe Phe Phe Phe Leu Thr Phe Leu Ala Leu Trp Val Met Gly  
 1 5 10 15

Thr Thr Ala Met Ala Ser Pro Phe Phe Met Gly Tyr Gln Leu Gln Tyr  
 20 25 30

Gly Pro Gln Cys Cys Ser Gly His Phe Asn Asp  
 35 40

<210> 59

<211> 201

<212> PRT

<213> Homo sapiens

<400> 59

Met Val Thr Leu Ala Glu Leu Leu Val Leu Leu Ala Ala Leu Leu Ala  
 1 5 10 15

Thr Val Ser Gly Tyr Phe Val Ser Ile Asp Ala His Ala Glu Glu Cys  
 20 25 30

Phe Phe Glu Arg Val Thr Ser Gly Thr Lys Met Gly Leu Ile Phe Glu  
 35 40 45

Val Ala Glu Gly Gly Phe Leu Asp Ile Asp Val Glu Ile Thr Gly Pro  
 50 55 60

Asp Asn Lys Gly Ile Tyr Lys Gly Asp Arg Glu Ser Ser Gly Lys Tyr  
 65 70 75 80

Thr Phe Ala Ala His Met Asp Gly Thr Tyr Lys Phe Cys Phe Ser Asn  
 85 90 95

Arg Met Ser Thr Met Thr Pro Lys Ile Val Met Phe Thr Ile Asp Ile  
 100 105 110

Gly Glu Ala Pro Lys Gly Gln Asp Met Glu Thr Glu Ala His Gln Asn  
 115 120 125

Lys Leu Glu Glu Met Ile Asn Glu Leu Ala Val Ala Met Thr Ala Val  
 130 135 140

Lys His Glu Gln Glu Tyr Met Glu Val Arg Glu Arg Ile His Arg Ala  
145 150 155 160

Ile Asn Asp Asn Thr Asn Ser Arg Val Val Leu Trp Ser Phe Phe Glu  
165 170 175

Ala Leu Val Leu Val Ala Met Thr Leu Gly Gln Ile Tyr Tyr Leu Lys  
180 185 190

Arg Phe Phe Glu Val Arg Arg Val Val  
195 200

<210> 60  
<211> 73  
<212> PRT  
<213> Homo sapiens

<400> 60  
Met Glu Leu Leu Lys Cys Ser Trp Gln Leu Phe Phe Ser Phe Leu Thr  
1 5 10 15

His Cys Ser Ala Ser Thr Ile Val Trp Leu Phe Val Gln His Arg Leu  
20 25 30

Ser Gln Ser His Asn Lys Pro Phe Phe Gly Ile Leu Gln Arg Cys His  
35 40 45

Ser Trp His Leu Asn Arg Glu Ser Phe Val Pro Asn Gln Ser Phe Ser  
50 55 60

Ile Tyr Glu Ser Cys Ser Ile Arg Lys  
65 70

<210> 61  
<211> 47  
<212> PRT  
<213> Homo sapiens

<400> 61  
Met Arg Leu Ser Arg Ala Ala His Asn Leu Gln Thr Ile Leu Tyr Ser  
1 5 10 15

Val Phe Cys Leu Cys Leu His Val Ala Met Met Asp Arg Ser Pro Ser  
20 25 30

Ser Ile Leu Ala Leu Trp Arg Ser Gly Ser Cys Ser Val Glu Ile  
35 40 45

<210> 62  
<211> 51  
<212> PRT  
<213> Homo sapiens

<400> 62

Met Leu Thr Leu Thr His Phe Val Ser Tyr Asp Tyr Phe Ile Val Lys  
1 5 10 15

Arg Leu Val Gly Trp Leu Val Gly Trp Leu Val Cys Phe Val Leu Val  
20 25 30

Ser Pro Phe Ile His Ser Leu Ser Thr Asn Tyr Asn Phe Leu Cys Phe  
35 40 45

Met Cys Gly  
50

<210> 63

<211> 587

<212> PRT

<213> Homo sapiens

<400> 63

Met Trp Arg Leu Gly Cys Leu Ile Trp Glu Val Phe Asn Gly Pro Leu  
1 5 10 15

Pro Arg Ala Ala Ala Leu Arg Asn Pro Gly Lys Ile Pro Lys Thr Leu  
20 25 30

Val Pro His Tyr Cys Glu Leu Val Gly Ala Asn Pro Lys Val Arg Pro  
35 40 45

Asn Pro Ala Arg Phe Leu Gln Asn Cys Arg Ala Pro Gly Gly Phe Met  
50 55 60

Ser Asn Arg Phe Val Glu Thr Asn Leu Phe Leu Glu Glu Ile Gln Ile  
65 70 75 80

Lys Glu Pro Ala Glu Lys Gln Lys Phe Phe Gln Glu Leu Ser Lys Ser  
85 90 95

Leu Asp Ala Phe Pro Glu Asp Phe Cys Arg His Lys Val Leu Pro Gln  
100 105 110

Leu Leu Thr Ala Phe Glu Phe Gly Asn Ala Gly Ala Val Val Leu Thr  
115 120 125

Pro Leu Phe Lys Val Gly Lys Phe Leu Ser Ala Glu Tyr Gln Gln  
130 135 140

Lys Ile Ile Pro Val Val Val Lys Met Phe Ser Ser Thr Asp Arg Ala  
145 150 155 160

Met Arg Ile Arg Leu Leu Gln Gln Met Glu Gln Phe Ile Gln Tyr Leu  
165 170 175

Asp Glu Pro Thr Val Asn Thr Gln Ile Phe Pro His Val Val His Gly  
180 185 190

Phe Leu Asp Thr Asn Pro Ala Ile Arg Glu Gln Thr Val Lys Ser Met  
195 200 205

Leu Leu Leu Ala Pro Lys Leu Asn Glu Ala Asn Leu Asn Val Glu Leu  
 210 215 220  
 Met Lys His Phe Ala Arg Leu Gln Ala Lys Asp Glu Gln Gly Pro Ile  
 225 230 235 240  
 Arg Cys Asn Thr Thr Val Cys Leu Gly Lys Ile Gly Ser Tyr Leu Ser  
 245 250 255  
 Ala Ser Thr Arg His Arg Val Leu Thr Ser Ala Phe Ser Arg Ala Thr  
 260 265 270  
 Arg Asp Pro Phe Ala Pro Ser Arg Val Ala Gly Val Leu Gly Phe Ala  
 275 280 285  
 Ala Thr His Asn Leu Tyr Ser Met Asn Asp Cys Ala Gln Lys Ile Leu  
 290 295 300  
 Pro Val Leu Cys Gly Leu Thr Val Asp Pro Glu Lys Ser Val Arg Asp  
 305 310 315 320  
 Gln Ala Phe Lys Ala Ile Arg Ser Phe Leu Ser Lys Leu Glu Ser Val  
 325 330 335  
 Ser Glu Asp Pro Thr Gln Leu Glu Glu Val Glu Lys Asp Val His Ala  
 340 345 350  
 Ala Ser Ser Pro Gly Met Gly Gly Ala Ala Ala Ser Trp Ala Gly Trp  
 355 360 365  
 Ala Val Thr Gly Val Ser Ser Leu Thr Ser Lys Leu Ile Arg Ser His  
 370 375 380  
 Pro Thr Thr Ala Pro Thr Glu Thr Asn Ile Pro Gln Arg Pro Thr Pro  
 385 390 395 400  
 Glu Gly His Trp Glu Thr Gln Glu Glu Asp Lys Asp Thr Ala Glu Asp  
 405 410 415  
 Ser Ser Thr Ala Asp Arg Trp Asp Asp Glu Asp Trp Gly Ser Leu Glu  
 420 425 430  
 Gln Glu Ala Glu Ser Val Leu Ala Gln Gln Asp Asp Trp Ser Thr Gly  
 435 440 445  
 Gly Gln Val Ser Arg Ala Ser Gln Val Ser Asn Ser Asp His Lys Ser  
 450 455 460  
 Ser Lys Ser Pro Glu Ser Asp Trp Ser Ser Trp Glu Ala Glu Gly Ser  
 465 470 475 480  
 Trp Glu Gln Gly Trp Gln Glu Pro Ser Ser Gln Glu Pro Pro Pro Asp  
 485 490 495  
 Gly Thr Arg Leu Ala Ser Glu Tyr Asn Trp Gly Gly Pro Glu Ser Ser  
 500 505 510  
 Asp Lys Gly Asp Pro Phe Ala Thr Leu Ser Ala Arg Pro Ser Thr Gln



515

520

525

Pro Arg Pro Asp Ser Trp Gly Glu Asp Asn Trp Glu Gly Leu Glu Thr  
 530 535 540

Asp Ser Arg Gln Val Lys Ala Glu Leu Ala Arg Lys Lys Arg Glu Glu  
 545 550 555 560

Arg Arg Arg Glu Met Glu Ala Lys Arg Ala Glu Arg Lys Val Ala Lys  
 565 570 575

Gly Pro Met Lys Leu Gly Ala Arg Lys Leu Asp  
 580 585

&lt;210&gt; 64

&lt;211&gt; 76

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 64

Met Val Val Asp Leu Phe Phe Tyr Leu Leu Cys Ile Phe Leu Val Leu  
 1 5 10 15

Trp Val Leu Glu Ala Met Ile Lys His Leu Met Tyr Ser Asp Met Ser  
 20 25 30

Ala Leu Ile Ala Ser Phe Ser Ser Phe Leu Asn Cys Ile His Tyr Phe  
 35 40 45

Gln Asn Arg Tyr Arg Tyr Ser Val Pro Pro Phe Glu Leu Leu Ala Cys  
 50 55 60

Ser Cys Phe Pro Leu Ser Pro Lys Gln Gly Phe Phe  
 65 70 75

&lt;210&gt; 65

&lt;211&gt; 146

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 65

Met Ala Ala Leu Leu Leu Leu Pro Leu Leu Leu Leu Pro Leu Leu  
 1 5 10 15

Leu Leu Lys Leu His Leu Trp Pro Gln Leu Arg Trp Leu Pro Ala Ala  
 20 25 30

Thr Ala Ala Arg Gly Ala Leu Glu Lys Ala Ser Gly Gln Arg Arg Glu  
 35 40 45

Pro Glu Met Gln Arg Pro Glu Ala Ala Arg Ser Leu Pro Glu Gly Thr  
 50 55 60

Val Pro Pro Glu Val Glu Glu Pro Pro Pro Leu Cys His Leu Glu Gln  
 65 70 75 80

Leu Trp Arg Cys Ser Ser Pro Leu Ala Gln Ser Phe Cys Gly Ser Gly  
                             85                            90                            95

Ser Gly Trp Pro Arg Pro Ala Cys Ala Leu Pro Leu Cys Pro Pro Pro  
                             100                            105                            110

Cys Ala Gly Ala Pro Cys Cys Thr Ala Ser Ala Ala Ala Arg Ala  
                             115                            120                            125

Arg Trp Cys Trp Arg Gln Ser Phe Trp Ser Pro Trp Ser Arg Thr Cys  
                             130                            135                            140

Pro Pro  
 145

<210> 66  
 <211> 56  
 <212> PRT  
 <213> Homo sapiens

<400> 66  
 Met Arg Leu Phe Ser Gln Met Leu Lys Ser Trp Met Ala Leu Phe Met  
           1                            5                            10                            15

Arg Asn Val Trp Leu Glu Met Thr Ile Ala Thr Ala His Thr Val Ser  
                             20                            25                            30

Thr Val His Trp Arg Lys Trp Thr Lys Met Leu Val Gln Ser Pro Thr  
                             35                            40                            45

Gln Val Lys Met Asn Val Ser Gln  
           50                            55

<210> 67  
 <211> 45  
 <212> PRT  
 <213> Homo sapiens

<400> 67  
 Met Leu Ser Ala Ser Ile Trp Leu Val Leu Ile Ile Ser Arg Gly Asn  
           1                            5                            10                            15

Ala Arg Gln Lys Val Lys Leu Cys Phe Leu Leu Met Leu Leu Ala Thr  
                             20                            25                            30

Trp Lys Arg Arg Arg Gly Arg Gly Lys Arg Gly Arg Ser  
           35                            40                            45

<210> 68  
 <211> 201  
 <212> PRT  
 <213> Homo sapiens

<400> 68  
 Met Val Thr Leu Ala Glu Leu Leu Val Leu Leu Ala Ala Leu Leu Ala

1	5	10	15
Thr Val Ser Gly Tyr Phe Val Ser Ile Asp Ala His Ala Glu Glu Cys	20	25	30
Phe Phe Glu Arg Val Thr Ser Gly Thr Lys Met Gly Leu Ile Phe Glu	35	40	45
Val Ala Glu Gly Gly Phe Leu Asp Ile Asp Val Glu Ile Thr Gly Pro	50	55	60
Asp Asn Lys Gly Ile Tyr Lys Gly Asp Arg Glu Ser Ser Gly Lys Tyr	65	70	75
Thr Phe Ala Ala His Met Asp Gly Thr Tyr Lys Phe Cys Phe Ser Asn	85	90	95
Arg Met Ser Thr Met Thr Pro Lys Ile Val Met Phe Thr Ile Asp Ile	100	105	110
Gly Glu Ala Pro Lys Gly Gln Asp Met Glu Thr Glu Ala His Gln Asn	115	120	125
Lys Leu Glu Glu Met Ile Asn Glu Leu Ala Val Ala Met Thr Ala Val	130	135	140
Lys His Glu Gln Glu Tyr Met Glu Val Arg Glu Arg Ile His Arg Ala	145	150	155
Ile Asn Asp Asn Thr Asn Ser Arg Val Val Leu Trp Ser Phe Phe Glu	165	170	175
Ala Leu Val Leu Val Ala Met Thr Leu Gly Gln Ile Tyr Tyr Leu Lys	180	185	190
Arg Phe Phe Glu Val Arg Arg Val Val	195	200	

&lt;210&gt; 69

&lt;211&gt; 201

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 69

Met Val Thr Leu Ala Glu Leu Leu Val Leu Leu Ala Ala Leu Leu Ala	1	5	10	15
Thr Val Ser Gly Tyr Phe Val Ser Ile Asp Ala His Ala Glu Glu Cys	20	25	30	
Phe Phe Glu Arg Val Thr Ser Gly Thr Lys Met Gly Leu Ile Phe Glu	35	40	45	
Val Ala Glu Gly Gly Phe Leu Asp Ile Asp Val Glu Ile Thr Gly Pro	50	55	60	
Asp Asn Lys Gly Ile Tyr Lys Gly Asp Arg Glu Ser Ser Gly Lys Tyr				

65		70		75		80
Thr Phe Ala Ala His Met Asp Gly Thr Tyr Lys Phe Cys Phe Ser Asn						
	85			90		95
Arg Met Ser Thr Met Thr Pro Lys Ile Val Met Phe Thr Ile Asp Ile						
	100		105		110	
Gly Glu Ala Pro Lys Gly Gln Asp Met Glu Thr Glu Ala His Gln Asn						
	115		120		125	
Lys Leu Glu Glu Met Ile Asn Glu Leu Ala Val Ala Met Thr Ala Val						
	130		135		140	
Lys His Glu Gln Glu Tyr Met Glu Val Arg Glu Arg Ile His Arg Ala						
	145		150		155	160
Ile Asn Asp Asn Thr Asn Ser Arg Val Val Leu Trp Ser Phe Phe Glu						
		165		170		175
Ala Leu Val Leu Val Ala Met Thr Leu Gly Gln Ile Tyr Tyr Leu Lys						
	180		185		190	
Arg Phe Phe Glu Val Arg Arg Val Val						
	195		200			

<210> 70  
 <211> 12  
 <212> PRT  
 <213> Homo sapiens  
  
 <400> 70  
 Met Gly Ser Ser Leu Ala Phe Ile Leu Phe Leu Pro  
 1 5 10

<210> 71  
 <211> 144  
 <212> PRT  
 <213> Homo sapiens  
  
 <220>  
 <221> SITE  
 <222> (138)  
 <223> Xaa equals any of the naturally occurring L-amino acids

<400> 71  
 Met Val Thr Leu Ala Glu Leu Leu Val Leu Leu Ala Ala Leu Leu Ala  
 1 5 10 15  
  
 Thr Val Ser Gly Tyr Phe Val Ser Ile Asp Ala His Ala Glu Glu Cys  
 20 25 30  
  
 Phe Phe Glu Arg Val Thr Ser Gly Thr Lys Met Gly Leu Ile Phe Glu  
 35 40 45  
  
 Val Ala Glu Gly Gly Phe Leu Asp Ile Asp Val Glu Val Arg Ala Ser

50

55

60

Cys Pro Gln Leu Arg Leu Gly Arg Val Ala Thr Arg Gly Leu Val Ala  
 65 70 75 80

Pro Gly Thr Gly Ala Gly Pro Val Trp Gly Val Gly Leu Glu Val Ala  
 85 90 95

Val Arg Val Leu Glu Lys Pro Arg Pro Pro Pro Pro Ala Pro Pro Arg  
 100 105 110

Pro Arg Arg Pro Pro Asn Gly Pro Phe Ser Arg Asp Leu Pro Gly Phe  
 115 120 125

Arg Asp Pro Leu Gly Ala Pro Ser Ala Xaa Leu Val Ala Leu Gly Phe  
 130 135 140

&lt;210&gt; 72

&lt;211&gt; 30

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;220&gt;

&lt;221&gt; SITE

&lt;222&gt; (28)

&lt;223&gt; Xaa equals any of the naturally occurring L-amino acids

&lt;400&gt; 72

Met Arg Leu Phe Ser Gln Met Leu Lys Ser Trp Met Ala Leu Phe Met  
 1 5 10 15

Arg Asn Val Trp Leu Glu Met Thr Ile Ala Thr Xaa Ile Gln  
 20 25 30

&lt;210&gt; 73

&lt;211&gt; 19

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 73

His Phe Asn Val Leu Ala Phe Pro Cys Asn Gln Phe Gly Gln Gln Glu  
 1 5 10 15

Pro Asp Ser

&lt;210&gt; 74

&lt;211&gt; 381

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 74

Thr Arg Lys Ser Arg Pro Lys Arg Gly Gly His Arg Leu Trp Val Pro  
 1 5 10 15  
 Gly Pro Arg Asp Ser Arg Phe Ser Leu Arg Ala Met Ala Pro Ala Lys  
 20 25 30  
 Ala Thr Asn Val Val Arg Leu Leu Leu Gly Ser Thr Ala Leu Trp Leu  
 35 40 45  
 Ser Gln Leu Gly Ser Gly Thr Val Ala Ala Ser Lys Ser Val Thr Ala  
 50 55 60  
 His Leu Ala Ala Lys Trp Pro Glu Thr Pro Leu Leu Leu Glu Ala Ser  
 65 70 75 80  
 Glu Phe Met Ala Glu Glu Ser Asn Glu Lys Phe Trp Gln Phe Leu Glu  
 85 90 95  
 Thr Val Gln Glu Leu Ala Ile Tyr Lys Gln Thr Glu Ser Asp Tyr Ser  
 100 105 110  
 Tyr Tyr Asn Leu Ile Leu Lys Lys Ala Gly Gln Phe Leu Asp Asn Leu  
 115 120 125  
 His Ile Asn Leu Leu Lys Phe Ala Phe Ser Ile Arg Ala Tyr Ser Pro  
 130 135 140  
 Ala Ile Gln Met Phe Gln Gln Ile Ala Ala Asp Glu Pro Pro Pro Asp  
 145 150 155 160  
 Gly Cys Asn Ala Phe Val Val Ile His Lys Lys His Thr Cys Lys Ile  
 165 170 175  
 Asn Glu Ile Lys Lys Leu Leu Lys Lys Ala Ala Ser Arg Thr Arg Pro  
 180 185 190  
 Tyr Leu Phe Lys Gly Asp His Lys Phe Pro Thr Asn Lys Glu Asn Leu  
 195 200 205  
 Pro Val Val Ile Leu Tyr Ala Glu Met Gly Thr Arg Thr Phe Ser Ala  
 210 215 220  
 Phe His Lys Val Leu Ser Glu Lys Ala Gln Asn Glu Glu Ile Leu Tyr  
 225 230 235 240  
 Val Leu Arg His Tyr Ile Gln Lys Pro Ser Ser Arg Lys Met Tyr Leu  
 245 250 255  
 Ser Gly Tyr Gly Val Glu Leu Ala Ile Lys Ser Thr Glu Tyr Lys Ala  
 260 265 270  
 Leu Asp Asp Thr Gln Val Lys Thr Val Thr Asn Thr Thr Val Glu Asp  
 275 280 285  
 Glu Thr Glu Thr Asn Glu Val Gln Gly Phe Leu Phe Gly Lys Leu Lys  
 290 295 300  
 Glu Ile Tyr Ser Asp Leu Arg Asp Asn Leu Thr Ala Phe Gln Lys Tyr

305                      310                      315                      320  
 Leu Ile Glu Ser Asn Lys Gln Met Met Pro Leu Lys Val Trp Glu Leu  
                                  325                      330                      335  
 Gln Asp Leu Ser Phe Gln Ala Ala Ser Gln Ile Met Ser Ala Pro Val  
                                  340                      345                      350  
 Tyr Asp Ala Ile Lys Leu Met Lys Asp Ile Ser Gln Asn Phe Pro Ile  
                                  355                      360                      365  
 Lys Ala Arg Val Gln Met Ile Gly Asn Val Leu Ile Gly  
                                  370                      375                      380

<210> 75  
 <211> 75  
 <212> PRT  
 <213> Homo sapiens

<400> 75  
 Gly Thr Ser Pro Ser Ser Leu Gln Ser Phe Ile His Gly Val Thr Ser  
   1                                  5                                  10                                  15  
 Glu Ala Phe Ala Val Pro Phe Phe Met Ile Ile Cys Leu Ile Met Phe  
                                   20                                  25                                  30  
 Tyr Phe Ile Ala Leu Ala Gly Ala His Lys Arg Val Val Ile Gln Leu  
                                   35                                  40                                  45  
 Arg Glu Gln Leu Ser Leu Glu Ser Arg Asp Lys Cys Tyr Leu Ile Gln  
                                   50                                  55                                  60  
 Lys Leu Thr Glu Ala Gln Arg Asp Met Arg Asn  
   65                                  70                                  75

<210> 76  
 <211> 115  
 <212> PRT  
 <213> Homo sapiens

<400> 76  
 Phe Gly Thr Arg Lys Pro Glu Pro Lys Ser Val Val Pro Ser Gly Pro  
   1                                  5                                  10                                  15  
 Val Leu Ala Asn Val Ser Met Phe Gly Glu Lys Gln Gly Thr Met Gln  
                                   20                                  25                                  30  
 Val Phe Phe Leu Ser Glu Ile Gly Met Leu Trp Val Val Val Lys Met  
                                   35                                  40                                  45  
 Ala His Ser Ala Met Leu Val Ser His Thr Gln Asp Pro Thr Pro Ser  
                                   50                                  55                                  60  
 Arg Trp Pro Cys Ser Leu Ala Gln Ser Ile Leu Leu Thr Cys Ser Pro  
   65                                  70                                  75                                  80

Gln His Arg Phe Ser Leu Glu Arg Lys Ile Gln Leu Pro Pro Arg Arg  
                   85                  90                  95

Trp Trp Ala Glu Gly Arg Glu Gly Cys Trp Val Arg Glu Arg Val Gly  
           100                  105                  110

Glu Arg Thr  
       115

<210> 77

<211> 185

<212> PRT

<213> Homo sapiens

<400> 77

His Ala Ser Gly Lys Cys Ser Arg Phe Arg Glu Ala Ala Ala Arg Arg  
   1                  5                  10                  15

Ser Ile Leu Ser Ala Pro Leu Pro Arg Arg Ala Asp Met Gln Ala Pro  
           20                  25                  30

Arg Ala Ala Leu Val Phe Ala Leu Val Ile Ala Leu Val Pro Val Gly  
       35                  40                  45

Arg Gly Asn Tyr Glu Glu Leu Glu Asn Ser Gly Asp Thr Thr Val Glu  
       50                  55                  60

Ser Glu Arg Pro Asn Lys Val Thr Ile Pro Ser Thr Phe Ala Ala Val  
   65                  70                  75                  80

Thr Ile Lys Glu Thr Leu Asn Ala Asn Ile Asn Ser Thr Asn Phe Ala  
           85                  90                  95

Pro Asp Glu Asn Gln Leu Glu Phe Ile Leu Met Val Leu Ile Pro Leu  
       100                  105                  110

Ile Leu Leu Val Leu Leu Leu Leu Ser Val Val Phe Leu Ala Thr Tyr  
       115                  120                  125

Tyr Lys Arg Lys Arg Thr Lys Gln Glu Pro Ser Ser Gln Gly Ser Gln  
       130                  135                  140

Ser Ala Leu Gln Thr Cys Glu Tyr Tyr Pro Lys Thr Cys Leu Gln Val  
   145                  150                  155                  160

Gly Val Gly Leu Glu Lys Glu Gln Arg Cys Phe Lys Ile Lys Gln Gln  
       165                  170                  175

Gly Leu His Ile Ile Val Ser Asp Lys  
       180                  185

<210> 78

<211> 618

<212> PRT

<213> Homo sapiens



&lt;400&gt; 78

Gly Thr Ser Leu His Gly Arg Arg Val Arg Gly Leu Ser Phe Leu Val  
 1 5 10 15  
 Asn Asp Cys Ser Gly Arg Val Val Arg Glu Lys Trp Ser Ala Asp Met  
 20 25 30  
 Trp Arg Leu Gly Cys Leu Ile Trp Glu Val Phe Asn Gly Pro Leu Pro  
 35 40 45  
 Arg Ala Ala Ala Leu Arg Asn Pro Gly Lys Ile Pro Lys Thr Leu Val  
 50 55 60  
 Pro His Tyr Cys Glu Leu Val Gly Ala Asn Pro Lys Val Arg Pro Asn  
 65 70 75 80  
 Pro Ala Arg Phe Leu Gln Asn Cys Arg Ala Pro Gly Gly Phe Met Ser  
 85 90 95  
 Asn Arg Phe Val Glu Thr Asn Leu Phe Leu Glu Glu Ile Gln Ile Lys  
 100 105 110  
 Glu Pro Ala Glu Lys Gln Lys Phe Phe Gln Glu Leu Ser Lys Ser Leu  
 115 120 125  
 Asp Ala Phe Pro Glu Asp Phe Cys Arg His Lys Val Leu Pro Gln Leu  
 130 135 140  
 Leu Thr Ala Phe Glu Phe Gly Asn Ala Gly Ala Val Val Leu Thr Pro  
 145 150 155 160  
 Leu Phe Lys Val Gly Lys Phe Leu Ser Ala Glu Glu Tyr Gln Gln Lys  
 165 170 175  
 Ile Ile Pro Val Val Val Lys Met Phe Ser Ser Thr Asp Arg Ala Met  
 180 185 190  
 Arg Ile Arg Leu Leu Gln Gln Met Glu Gln Phe Ile Gln Tyr Leu Asp  
 195 200 205  
 Glu Pro Thr Val Asn Thr Gln Ile Phe Pro His Val Val His Gly Phe  
 210 215 220  
 Leu Asp Thr Asn Pro Ala Ile Arg Glu Gln Thr Val Lys Ser Met Leu  
 225 230 235 240  
 Leu Leu Ala Pro Lys Leu Asn Glu Ala Asn Leu Asn Val Glu Leu Met  
 245 250 255  
 Lys His Phe Ala Arg Leu Gln Ala Lys Asp Glu Gln Gly Pro Ile Arg  
 260 265 270  
 Cys Asn Thr Thr Val Cys Leu Gly Lys Ile Gly Ser Tyr Leu Ser Ala  
 275 280 285  
 Ser Thr Arg His Arg Val Leu Thr Ser Ala Phe Ser Arg Ala Thr Arg  
 290 295 300

Asp Pro Phe Ala Pro Ser Arg Val Ala Gly Val Leu Gly Phe Ala Ala  
 305 310 315 320  
 Thr His Asn Leu Tyr Ser Met Asn Asp Cys Ala Gln Lys Ile Leu Pro  
 325 330 335  
 Val Leu Cys Gly Leu Thr Val Asp Pro Glu Lys Ser Val Arg Asp Gln  
 340 345 350  
 Ala Phe Lys Ala Ile Arg Ser Phe Leu Ser Lys Leu Glu Ser Val Ser  
 355 360 365  
 Glu Asp Pro Thr Gln Leu Glu Glu Val Glu Lys Asp Val His Ala Ala  
 370 375 380  
 Ser Ser Pro Gly Met Gly Gly Ala Ala Ala Ser Trp Ala Gly Trp Ala  
 385 390 395 400  
 Val Thr Gly Val Ser Ser Leu Thr Ser Lys Leu Ile Arg Ser His Pro  
 405 410 415  
 Thr Thr Ala Pro Thr Glu Thr Asn Ile Pro Gln Arg Pro Thr Pro Glu  
 420 425 430  
 Gly His Trp Glu Thr Gln Glu Glu Asp Lys Asp Thr Ala Glu Asp Ser  
 435 440 445  
 Ser Thr Ala Asp Arg Trp Asp Asp Glu Asp Trp Gly Ser Leu Glu Gln  
 450 455 460  
 Glu Ala Glu Ser Val Leu Ala Gln Gln Asp Asp Trp Ser Thr Gly Gly  
 465 470 475 480  
 Gln Val Ser Arg Ala Ser Gln Val Ser Asn Ser Asp His Lys Ser Ser  
 485 490 495  
 Lys Ser Pro Glu Ser Asp Trp Ser Ser Trp Glu Ala Glu Gly Ser Trp  
 500 505 510  
 Glu Gln Gly Trp Gln Glu Pro Ser Ser Gln Glu Pro Pro Pro Asp Gly  
 515 520 525  
 Thr Arg Leu Ala Ser Glu Tyr Asn Trp Gly Gly Pro Glu Ser Ser Asp  
 530 535 540  
 Lys Gly Asp Pro Phe Ala Thr Leu Ser Ala Arg Pro Ser Thr Gln Pro  
 545 550 555 560  
 Arg Pro Asp Ser Trp Gly Glu Asp Asn Trp Glu Gly Leu Glu Thr Asp  
 565 570 575  
 Ser Arg Gln Val Lys Ala Glu Leu Ala Arg Lys Lys Arg Glu Glu Arg  
 580 585 590  
 Arg Arg Glu Met Glu Ala Lys Arg Ala Glu Arg Lys Val Ala Lys Gly  
 595 600 605  
 Pro Met Lys Leu Gly Ala Arg Lys Leu Asp

610

615

<210> 79  
 <211> 198  
 <212> PRT  
 <213> Homo sapiens

&lt;400&gt; 79

Arg Ser Gly Ile Pro Gly Ser Thr His Ala Ser Ala Arg Ala Pro Trp  
 1 5 10 15

Lys Glu Lys Ser Gln Leu Glu Arg Ala Ala Leu Gly Phe Arg Lys Gly  
 20 25 30

Gly Ser Gly Met Phe Ala Ser Gly Trp Asn Gln Thr Val Pro Ile Glu  
 35 40 45

Glu Ala Gly Ser Met Ala Ala Leu Leu Leu Leu Pro Leu Leu Leu Leu  
 50 55 60

Leu Pro Leu Leu Leu Leu Lys Leu His Leu Trp Pro Gln Leu Arg Trp  
 65 70 75 80

Leu Pro Ala Ala Thr Ala Ala Arg Gly Ala Leu Glu Lys Ala Ser Gly  
 85 90 95

Gln Arg Arg Glu Pro Glu Met Gln Arg Pro Glu Ala Ala Arg Ser Leu  
 100 105 110

Pro Glu Gly Thr Val Pro Pro Glu Val Glu Glu Pro Pro Pro Leu Cys  
 115 120 125

His Leu Glu Gln Leu Trp Arg Cys Ser Ser Pro Leu Ala Gln Ser Phe  
 130 135 140

Cys Gly Ser Gly Ser Gly Trp Pro Arg Pro Ala Cys Ala Leu Pro Leu  
 145 150 155 160

Cys Pro Pro Pro Cys Ala Gly Ala Pro Cys Cys Thr Ala Ser Ala Ala  
 165 170 175

Ala Ala Arg Ala Arg Trp Cys Trp Arg Gln Ser Phe Trp Ser Pro Trp  
 180 185 190

Ser Arg Thr Cys Pro Pro  
 195

<210> 80  
 <211> 458  
 <212> PRT  
 <213> Homo sapiens

&lt;400&gt; 80

Pro Val Arg Asn Ser Arg Val Asp Pro Arg Val Arg Ala Arg Ser Leu  
 1 5 10 15

Glu Gly Glu Val Ser Ala Arg Thr Ser Gly Pro Arg Phe Ser Glu Gly  
                   20                  25                  30  
 Arg Ile Arg Asp Val Cys Glu Arg Leu Glu Pro Asp Gly Ala Asp Arg  
           35                  40                  45  
 Gly Ser Gly Leu His Gly Cys Pro Pro Ala Ala Ala Pro Ala Ala Val  
       50                  55                  60  
 Ala Thr Ala Ala Ala Ala Glu Ala Thr Pro Leu Ala Ala Val Ala Leu  
   65                  70                  75                  80  
 Ala Ser Gly Gly Asp Ser Gly Glu Gly Ser Ala Gly Glu Gly Glu Arg  
                   85                  90                  95  
 Ala Ala Pro Gly Ala Gly Asp Ala Ala Ala Gly Ser Gly Ala Glu Phe  
                  100                 105                 110  
 Ala Gly Gly Asp Gly Ala Ala Arg Gly Gly Gly Ala Ala Ala Pro Leu  
      115                 120                 125  
 Ser Pro Gly Ala Thr Val Ala Leu Leu Leu Pro Ala Gly Pro Glu Phe  
   130                 135                 140  
 Leu Trp Leu Trp Phe Gly Leu Ala Lys Ala Gly Leu Arg Thr Ala Phe  
  145                 150                 155                 160  
 Val Pro Thr Ala Leu Arg Arg Gly Pro Leu Leu His Cys Leu Arg Ser  
                  165                 170                 175  
 Cys Gly Ala Arg Ala Leu Val Leu Ala Pro Glu Phe Leu Glu Ser Leu  
      180                 185                 190  
 Glu Pro Asp Leu Pro Ala Leu Arg Ala Met Gly Leu His Leu Trp Ala  
   195                 200                 205  
 Ala Gly Pro Gly Thr His Pro Ala Gly Ile Ser Asp Leu Leu Ala Glu  
   210                 215                 220  
 Val Ser Ala Glu Val Asp Gly Pro Val Pro Gly Tyr Leu Ser Ser Pro  
  225                 230                 235                 240  
 Gln Ser Ile Thr Asp Thr Cys Leu Tyr Ile Phe Thr Ser Gly Thr Thr  
                  245                 250                 255  
 Gly Leu Pro Lys Ala Ala Arg Ile Ser His Leu Lys Ile Leu Gln Cys  
      260                 265                 270  
 Gln Gly Phe Tyr Gln Leu Cys Gly Val His Gln Glu Asp Val Ile Tyr  
      275                 280                 285  
 Leu Ala Leu Pro Leu Tyr His Met Ser Gly Ser Leu Leu Gly Ile Val  
   290                 295                 300  
 Gly Cys Met Gly Ile Gly Ala Thr Val Val Leu Lys Ser Lys Phe Ser  
  305                 310                 315                 320  
 Ala Gly Gln Phe Trp Glu Asp Cys Gln Gln His Arg Val Thr Val Phe

325

330

335

Gln Tyr Ile Gly Glu Leu Cys Arg Tyr Leu Val Asn Gln Pro Pro Ser  
 340 345 350

Lys Ala Glu Arg Gly His Lys Val Arg Leu Ala Val Gly Ser Gly Leu  
 355 360 365

Arg Pro Asp Thr Trp Glu Arg Phe Val Arg Arg Phe Gly Pro Leu Gln  
 370 375 380

Val Leu Glu Thr Tyr Gly Leu Thr Glu Gly Asn Val Ala Thr Ile Asn  
 385 390 395 400

Tyr Thr Gly Gln Arg Gly Ala Val Gly Arg Ala Ser Trp Leu Tyr Lys  
 405 410 415

Val Arg Gly Arg Glu Glu Thr Glu Asn Pro Trp Asn Ser Arg Gly Leu  
 420 425 430

Ala Gly Glu Gly Ala His Val Thr Ala Met Ile Gln Tyr Pro Gly Leu  
 435 440 445

Pro Phe Pro Ser Ile Ser Ser Pro Ser Pro  
 450 455

&lt;210&gt; 81

&lt;211&gt; 377

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 81

Ser Gly Gly Asp Ser Gly Glu Gly Ser Ala Gly Glu Gly Glu Arg Ala  
 1 5 10 15

Ala Pro Gly Ala Gly Asp Ala Ala Ala Gly Ser Gly Ala Glu Phe Ala  
 20 25 30

Gly Gly Asp Gly Ala Ala Arg Gly Gly Gly Ala Ala Ala Pro Leu Ser  
 35 40 45

Pro Gly Ala Thr Val Ala Leu Leu Leu Pro Ala Gly Pro Glu Phe Leu  
 50 55 60

Trp Leu Trp Phe Gly Leu Ala Lys Ala Gly Leu Arg Thr Ala Phe Val  
 65 70 75 80

Pro Thr Ala Leu Arg Arg Gly Pro Leu Leu His Cys Leu Arg Ser Cys  
 85 90 95

Gly Ala Arg Ala Leu Val Leu Ala Pro Glu Phe Leu Glu Ser Leu Glu  
 100 105 110

Pro Asp Leu Pro Ala Leu Arg Ala Met Gly Leu His Leu Trp Ala Ala  
 115 120 125

Gly Pro Gly Thr His Pro Ala Gly Ile Ser Asp Leu Leu Ala Glu Val

130	135	140
Ser Ala Glu Val Asp Gly Pro Val Pro Gly Tyr Leu Ser Ser Pro Gln 145 150 155 160		
Ser Ile Thr Asp Thr Cys Leu Tyr Ile Phe Thr Ser Gly Thr Thr Gly 165 170 175		
Leu Pro Lys Ala Ala Arg Ile Ser His Leu Lys Ile Leu Gln Cys Gln 180 185 190		
Gly Phe Tyr Gln Leu Cys Gly Val His Gln Glu Asp Val Ile Tyr Leu 195 200 205		
Ala Leu Pro Leu Tyr His Met Ser Gly Ser Leu Leu Gly Ile Val Gly 210 215 220		
Cys Met Gly Ile Gly Ala Thr Val Val Leu Lys Ser Lys Phe Ser Ala 225 230 235 240		
Gly Gln Phe Trp Glu Asp Cys Gln Gln His Arg Val Thr Val Phe Gln 245 250 255		
Tyr Ile Gly Glu Leu Cys Arg Tyr Leu Val Asn Gln Pro Pro Ser Lys 260 265 270		
Ala Glu Arg Gly His Lys Val Arg Leu Ala Val Gly Ser Gly Leu Arg 275 280 285		
Pro Asp Thr Trp Glu Arg Phe Val Arg Arg Phe Gly Pro Leu Gln Val 290 295 300		
Leu Glu Thr Tyr Gly Leu Thr Glu Gly Asn Val Ala Thr Ile Asn Tyr 305 310 315 320		
Thr Gly Gln Arg Gly Ala Val Gly Arg Ala Ser Trp Leu Tyr Lys Val 325 330 335		
Arg Gly Arg Glu Glu Thr Glu Asn Pro Trp Asn Ser Arg Gly Leu Ala 340 345 350		
Gly Glu Gly Ala His Val Thr Ala Met Ile Gln Tyr Pro Gly Leu Pro 355 360 365		
Phe Pro Ser Ile Ser Ser Pro Ser Pro 370 375		

&lt;210&gt; 82

&lt;211&gt; 257

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 82

Met Gly Leu His Leu Trp Ala Ala Gly Pro Gly Thr His Pro Ala Gly
1 5 10 15

Ile Ser Asp Leu Leu Ala Glu Val Ser Ala Glu Val Asp Gly Pro Val

20

25

30

Pro Gly Tyr Leu Ser Ser Pro Gln Ser Ile Thr Asp Thr Cys Leu Tyr  
           35                          40                          45

Ile Phe Thr Ser Gly Thr Thr Gly Leu Pro Lys Ala Ala Arg Ile Ser  
      50                          55                          60

His Leu Lys Ile Leu Gln Cys Gln Gly Phe Tyr Gln Leu Cys Gly Val  
      65                          70                          75                          80

His Gln Glu Asp Val Ile Tyr Leu Ala Leu Pro Leu Tyr His Met Ser  
                           85                          90                          95

Gly Ser Leu Leu Gly Ile Val Gly Cys Met Gly Ile Gly Ala Thr Val  
                           100                          105                          110

Val Leu Lys Ser Lys Phe Ser Ala Gly Gln Phe Trp Glu Asp Cys Gln  
                           115                          120                          125

Gln His Arg Val Thr Val Phe Gln Tyr Ile Gly Glu Leu Cys Arg Tyr  
      130                          135                          140

Leu Val Asn Gln Pro Pro Ser Lys Ala Glu Arg Gly His Lys Val Arg  
      145                          150                          155                          160

Leu Ala Val Gly Ser Gly Leu Arg Pro Asp Thr Trp Glu Arg Phe Val  
                           165                          170                          175

Arg Arg Phe Gly Pro Leu Gln Val Leu Glu Thr Tyr Gly Leu Thr Glu  
                           180                          185                          190

Gly Asn Val Ala Thr Ile Asn Tyr Thr Gly Gln Arg Gly Ala Val Gly  
                           195                          200                          205

Arg Ala Ser Trp Leu Tyr Lys Val Arg Gly Arg Glu Glu Thr Glu Asn  
      210                          215                          220

Pro Trp Asn Ser Arg Gly Leu Ala Gly Glu Gly Ala His Val Thr Ala  
      225                          230                          235                          240

Met Ile Gln Tyr Pro Gly Leu Pro Phe Pro Ser Ile Ser Ser Pro Ser  
                           245                          250                          255

Pro

&lt;210&gt; 83

&lt;211&gt; 34

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 83

Phe Ala Met Met Ser Pro Gln Glu Ser Gln Phe Gly Thr Pro Arg Gly  
   1                          5                          10                          15

Thr Val Trp Pro His Leu Gln Val Gly Gly Val Leu Val Gly Trp Ala

20

25

30

Gly Cys

&lt;210&gt; 84

&lt;211&gt; 112

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 84

Pro Leu Thr Pro Ser Phe Arg Ser Leu Leu Ser Asp Arg Trp Lys Gly  
 1 5 10 15

Glu Asn Val Ala Thr Thr Glu Val Ala Glu Val Phe Glu Ala Leu Asp  
 20 25 30

Phe Leu Gln Glu Val Asn Val Tyr Gly Val Thr Val Pro Gly His Glu  
 35 40 45

Gly Arg Ala Gly Met Ala Ala Leu Val Leu Arg Pro Pro His Ala Leu  
 50 55 60

Asp Leu Met Gln Leu Tyr Thr His Val Ser Glu Asn Leu Pro Pro Tyr  
 65 70 75 80

Ala Arg Pro Arg Phe Leu Arg Leu Gln Ala Val Gly Ala Tyr Leu Pro  
 85 90 95

Leu Thr Thr Ala Arg Tyr Ser Ala Leu Leu Ala Gly Asn Leu Arg Ile  
 100 105 110

&lt;210&gt; 85

&lt;211&gt; 422

&lt;212&gt; PRT

&lt;213&gt; Homo sapiens

&lt;400&gt; 85

Met Pro Val Pro Glu Ile Gln Asp Gln Val Ser Cys Gln Ala His Val  
 1 5 10 15

Asn Glu Ile Ile Lys Thr Ile Ile Ile His His Glu Thr Ile Phe Pro  
 20 25 30

Asp Ala Lys Glu Leu Asp Gly Pro Val Tyr Glu Lys Cys Met Ala Gly  
 35 40 45

Asp Asp Tyr Cys Asp Ser Pro Tyr Ser Glu His Gly Thr Leu Glu Glu  
 50 55 60

Val Asp Gln Asp Ala Gly Thr Glu Pro His Thr Ser Glu Asp Glu Cys  
 65 70 75 80



Glu Pro Ile Glu Ala Ile Ala Lys Phe Asp Tyr Val Gly Arg Ser Ala  
                     85                    90                    95  
 Arg Glu Leu Ser Phe Lys Lys Gly Ala Ser Leu Leu Leu Tyr His Arg  
                     100                    105                    110  
 Ala Ser Glu Asp Trp Trp Glu Gly Arg His Asn Gly Ile Asp Gly Leu  
                     115                    120                    125  
 Val Pro His Gln Tyr Ile Val Val Gln Asp Met Asp Asp Thr Phe Ser  
                     130                    135                    140  
 Asp Thr Leu Ser Gln Lys Ala Asp Ser Glu Ala Ser Ser Gly Pro Val  
                     145                    150                    155                    160  
 Thr Glu Asp Lys Ser Ser Ser Lys Asp Met Asn Ser Pro Thr Asp Arg  
                     165                    170                    175  
 His Pro Asp Gly Tyr Leu Ala Arg Gln Arg Lys Arg Gly Glu Pro Pro  
                     180                    185                    190  
 Pro Pro Val Arg Arg Pro Gly Arg Thr Ser Asp Gly His Cys Pro Leu  
                     195                    200                    205  
 His Pro Pro His Ala Leu Ser Asn Ser Ser Val Asp Leu Gly Ser Pro  
                     210                    215                    220  
 Ser Leu Ala Ser His Pro Arg Gly Leu Leu Gln Asn Arg Gly Leu Asn  
                     225                    230                    235                    240  
 Asn Asp Ser Pro Glu Arg Arg Arg Arg Pro Gly His Gly Ser Leu Thr  
                     245                    250                    255  
 Asn Ile Ser Arg His Asp Ser Leu Lys Lys Ile Asp Ser Pro Pro Ile  
                     260                    265                    270  
 Arg Arg Ser Thr Ser Ser Gly Gln Tyr Thr Gly Phe Asn Asp His Lys  
                     275                    280                    285  
 Pro Leu Asp Pro Glu Thr Ile Ala Gln Asp Ile Glu Glu Thr Met Asn  
                     290                    295                    300  
 Thr Ala Leu Asn Glu Leu Arg Glu Leu Glu Arg Gln Ser Thr Ala Lys  
                     305                    310                    315                    320  
 His Ala Pro Asp Val Val Leu Asp Thr Leu Glu Gln Val Lys Asn Ser  
                     325                    330                    335  
 Pro Thr Pro Ala Thr Ser Thr Glu Ser Leu Ser Pro Leu His Asn Val  
                     340                    345                    350  
 Ala Leu Arg Ser Ser Glu Pro Gln Ile Arg Arg Ser Thr Ser Ser Ser  
                     355                    360                    365  
 Ser Asp Thr Met Ser Thr Phe Lys Pro Met Val Ala Pro Arg Met Gly  
                     370                    375                    380  
 Val Gln Leu Lys Pro Pro Ala Leu Arg Pro Lys Pro Ala Val Leu Pro

385                      390                      395                      400

Lys Thr Asn Pro Thr Ile Gly Pro Ala Pro Pro Pro Gln Gly Pro Thr  
                                  405                      410                      415

Asp Lys Ser Cys Thr Met  
                                  420

<210> 86  
 <211> 150  
 <212> PRT  
 <213> Homo sapiens

<400> 86  
 Ser Trp His Arg Arg Thr Gly Ile Gly Asp Trp Gly Gly Trp Gly Gln  
   1                      5                      10                      15

Lys Ala Leu Gly Lys Val Thr Pro Leu Leu Thr Leu Val Thr Leu Pro  
                                  20                      25                      30

Gly Glu Pro Gly Leu Leu Val Ala Pro Val Ser Gln Gln Ser Pro Phe  
                                  35                      40                      45

Leu Gly Tyr Ala Gly Gly Pro Glu Leu Ala Gln Gly Lys Leu Leu Lys  
   50                      55                      60

Asp Val Phe Arg Pro Gly Asp Val Phe Phe Asn Thr Gly Asp Leu Leu  
   65                      70                      75                      80

Val Cys Asp Asp Gln Gly Phe Leu Arg Phe His Asp Arg Thr Gly Asp  
                                  85                      90                      95

Thr Phe Arg Tyr Leu Ser Ile Thr Gly Phe Ser Ser Trp Thr Ser Asp  
                                  100                      105                      110

Leu Cys Asp Pro Lys Leu Leu Asn Leu Asn Ser Leu Ile Cys His Leu  
                                  115                      120                      125

Asn Leu Gly Pro Lys Leu Ile Ser His Ser Gln Ile Ser Pro Phe His  
                                  130                      135                      140

Pro Cys Asp Thr Asp Leu  
   145                      150